

PATENT ABSTRACTS OF JAPAN

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(54) DEVICE AND METHOD FOR PROCESSING INFORMATION AND PROGRAM

(57)Abstract:

PROBLEM TO BE SOLVED: To facilitate the operation of contents recorded on a recording medium by grouping the contents.

SOLUTION: In a GUI (graphical user interface) part 101 it is decided whether the creation of a novel group is requested or not and thus processing is repeated until the creation of the novel group is requested. In the GUI part 101a a dialog box for creation of the novel group is displayed. When a group name is inputted to the dialog box in the GUI part 101a a created group name is displayed as the inputted group name and it is commanded through a transfer processing part 103 to a portable MD drive 5 to rewrite information on grouping of a TOC (table of contents) on a loaded MD.

CLAIMS

[Claim(s)]

[Claim 1] Have the following and said list information displaying means based on information which shows a list of said two or more data recorded on a portion which can be inputted by text data in a name of said recording medium and said group's information. An information processor wherein said reading means reads said data unit or said two or more of said data which were recorded on said recording medium per group by operating said picture by displaying as a picture information which shows a list of two or more data.

A data recording means which records two or more data on a recording medium.

A list information displaying means which displays as a picture information which shows a list of said two or more data.

A list information editing means which edits information which shows a list of said two or more data by operating said picture.

With information which indicates a list of said two or more data to be a group creating means which generates a group from said two or more data by operating said picture. A list information recording device which records a name of said recording medium for said group's information on a portion which can be inputted by text data and a reading means which reads said two or more data recorded on said recording medium by operating said picture.

[Claim 2]The information processor according to claim 1 wherein said recording medium is MD.

[Claim 3]The information processor according to claim 2 wherein a portion which can be inputted by text data is TOC of said MD about a name of said recording medium.

[Claim 4]The information processor according to claim 3 being a portion on which a portion which can be inputted by text data records diskname in TOC of said MD for a name of said recording medium.

[Claim 5]The information processor according to claim 1 wherein said data is a music content.

[Claim 6]A data recording step which records two or more data on a recording medium a list information displaying step which displays as a picture information which shows a list of said two or more data and by operating said picture With information which indicates lists of said two or more data to be a list information edit step which edits information which shows a list of said two or more data and a group generation step which generates a group from said two or more data by operating said picture. A list information record step which records a name of said recording medium for said group's information on a portion which can be inputted by text data and by operating said picture Said two or more data recorded on said recording medium including a read-out step to read processing of said list information displaying step Based on information which shows a list of said two or more data recorded on a portion which can be inputted by text data in a name of said recording medium and said group's information An information processing method wherein processing of said read-out step reads said data unit or said two or more of said data which were recorded on said recording medium per group by operating said picture by displaying as a picture information which shows a list of two or more data.

[Claim 7]A data recording control step which controls record of two or more data to a recording medium A list information display control step which controls a display as a picture of information which shows a list of said two or more data A list information edit control step which controls edit of information which shows a list of said two or more data by said picture being operated A group generation control step by said picture being operated which controls a group's generation from said two or more data A list information record control step which controls record into a portion which can be inputted by text data for a name of said

recording medium information which shows a list of said two or more data and said group's information. A computer is made to perform a reading control step which controls read-out of said two or more data recorded on said recording medium by said picture being operated. Based on information which shows a list of said two or more data recorded on a portion which can be inputted by text data in a name of said recording medium and said group's information, processing of said list information display control step said data unit by controlling a display as a picture of information which shows a list of two or more data and said picture being operated as for processing of said reading control step -- or A program controlling read-out of said two or more data recorded on said recording medium in said group unit.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] Especially this invention relates to the information processor which could be made to make easy operation of the data recorded on recording media such as MD, a method and a program about an information processor, a method and a program.

[0002]

[Description of the Prior Art] Generally the portable recording medium represented by MD (Mini Disc (registered trademark)) etc. is spreading as a recording medium which carries out record reproduction of the data of a musical file (music content which consists of voice data) etc. MD is made possible [usually recording stereo sound data corresponding in 74 minutes]. However these days improvement is added to the recording method to MD or the compression technology of data and it is becoming possible to record the conventional stereo sound data (much sound content) of a 4 time (74 minute x4= 296 minutes) thing long time.

[0003]

[Problem(s) to be Solved by the Invention] By the way the service of making the music content considered as a user's request record distributed to such MD via the Internet etc. from the distributing server of a music content is planned.

[0004] At this time out of two or more music contents recorded on MD for example. To move only a certain specific artist's music content to a personal computer etc. on old MD. Since management what is called by grouping of summarizing a music content for every artist cannot be performed (a group cannot be set up) One one-piece music content of a desired artist had to be specified and it had to be made to move out of the music content recorded on MD. However since only the part whose prolonged sound recording to MD was attained by the latest improvement can record many music contents as mentioned above. It was expected that operation of searching a desired artist's music content by a help and moving it respectively out of a huge quantity of a music content will become very

complicated and it had become a technical problem.

[0005] This invention is made in view of such a situation is carrying out grouping of the data (for example music content) recorded on the portable recording medium represented by MD and enabling it to operate it per group and makes easy management of the contents recorded on the recording medium.

[0006]

[Means for Solving the Problem] An information processor of this invention a data recording means which records two or more data on a recording medium a list information displaying means which displays as a picture information which shows a list of two or more data and by operating a picture With information which indicates lists of two or more data to be a list information editing means which edits information which shows a list of two or more data and a group creating means which generates a group from two or more data by operating a picture. A list information recording device which records a name of a recording medium for a group's information on a portion which can be inputted by text data and by operating a picture Have a reading means which reads two or more data recorded on a recording medium and a list information displaying means Based on information which shows a list of two or more data recorded on a portion which can be inputted by text data in a name of a recording medium and a group's information A reading means reads a data unit or two or more data which were recorded on a recording medium per group by operating a picture by displaying as a picture information which shows a list of two or more data.

[0007] Said recording medium can be set to MD.

[0008] The portion which can be inputted by text data can set a name of said recording medium to TOC of MD.

[0009] The portion which can be inputted by text data can use a name of said recording medium as a portion which records diskname in TOC of MD.

[0010] Said data can be made into a music content.

[0011] An information processing method of this invention a data recording step which records two or more data on a recording medium a list information displaying step which displays as a picture information which shows a list of two or more data and by operating a picture With information which indicates lists of two or more data to be a list information edit step which edits information which shows a list of two or more data and a group generation step which generates a group from two or more data by operating a picture. A list information record step which records a name of a recording medium for a group's information on a portion which can be inputted by text data and by operating a picture Two or more data recorded on a recording medium including a read-out step to read processing of a list information displaying step Based on information which shows a list of two or more data recorded on a portion which can be inputted by text data in a name of a recording medium and a group's information Processing of a read-out step reads a data unit or two or more data which were recorded on a recording medium per group by operating a picture by displaying as a picture information which shows a list of two or more data.

[0012]A data recording control step by which a program of this invention controls record of two or more data to a recording mediumA list information display control step which controls a display as a picture of information which shows a list of two or more dataA list information edit control step which controls edit of information which shows a list of two or more data depended on a picture being operatedA group generation control step which is depended on a picture being operated and which controls a group's generation from two or more dataA list information record control step which controls record into a portion which can be inputted by text data for a name of a recording medium information which shows a list of two or more dataand a group's informationMake a computer perform a reading control step which controls read-out of two or more data recorded on a recording medium by a picture being operatedand processing of a list information display control stepBased on information which shows a list of two or more data recorded on a portion which can be inputted by text data in a name of a recording mediumand a group's informationa data unit by controlling a display as a picture of information which shows a list of two or more dataand a picture being operated by computer as for processing of a reading control step -- orRead-out of two or more data recorded on a recording medium in a group unit is controlled.

[0013]In an information processor of this inventiona methodand a programBy recording two or more data on a recording mediumdisplaying as a picture information which shows a list of two or more dataand operating a pictureWith information which a group is generated and shows a list of two or more data from two or more data by editing information which shows a list of two or more dataand operating a picture. By recording a group's information on a portion which can be inputted by text data in a name of a recording mediumand operating a pictureBased on information which shows a list of two or more data which two or more data recorded on a recording medium was readand was recorded on a portion which can be inputted by text data in a name of a recording mediumand a group's informationInformation which shows a list of two or more data is displayed as a pictureand a data unit or two or more data which were recorded on a recording medium per group are read by operating a picture.

[0014]

[Embodiment of the Invention]Drawing 1 is a figure showing the 1 embodiment of the contents data management system concerning this invention. The personal computer 1 is connected to the network 2 which comprises a Local Area Network or the Internet. . Received the personal computer 1 from the EMD (Electronic Music Distribution) server 3. Or the data (contents are called hereafter) of the musical tone read in CD (Compact Disc) which is not illustrated is recorded as it is or is changed and recorded on the method (for exampleATRAC3 (trademark)) of predetermined coding.

[0015]the data (for examplea track name.) relevant to contents for the contents which are recording the personal computer 1 Or TOC (Table of Contents) of MD6 of portable MD drive 5 connected via the USB (Universal Serial Bus) cable with the artist name etc. is made to memorize (check-out is called hereafter).

[0016]The contents whichas for the personal computer 1the personal computer 1 checked out to MD6 of portable MD drive 5 connected via the USB cableIt is made to read from MD6 to portable MD drive 5 (check-in is called hereafter). (it is made to move to the personal computer 1)

[0017]EMD server 3 supplies contents to the personal computer 1 via the network 2 corresponding to the demand of the personal computer 1 with the data (for examplea track namereproduction restrictionsetc.) relevant to contents.

[0018]The WWW (World Wide Web) server 4Corresponding to the demand of the personal computer 1via the network 2The data (for examplethe album name of CD or the sales company of CD etc.) corresponding to CD which read contentsand the data (for examplea track name or a composer name etc.) corresponding to the contents read in CD are supplied to the personal computer 1.

[0019]Portable MD drive 5 makes MD6 memorize the contents (namelychecked-out contents) supplied from the personal computer 1. Portable MD drive 5 is reproduced and outputs the contents memorized to MD6 to the headphone etc. which are not illustrated.

[0020]The user can reproduce the memorized contents with which removed the portable device 5 with which it was equipped with MD6 which memorized contents from the personal computer 1and it walked aroundand can listen to the music corresponding to contentsetc. by headphone etc.

[0021]Personal digital assistant devices formed in the shop front etc. of the store which does not illustrate the memory card 7such as a terminal unit and PDA (Personal Digital Assistant)Or it is inserted in a portable telephone and a terminal unita personal digital assistant deviceor the contents that the user purchased by operation of a portable telephone are memorized.

[0022]The slot of the personal computer 1 is equipped with the memory card 7 which memorized contents. The personal computer 1 imports the contents memorized from the memory card 7 with which it was equipped. He can check out the contents imported at the personal computer 1 to MD6 of portable MD drive 5or they can check in at the contents memorized by MD6 of portable MD drive 5.

[0023]Drawing 2 is a figure explaining the composition of the personal computer 1. CPU(CentralProcessing Unit) 11 actually performs the various application programs for realizing the function mentioned laterand OS (Operating System). GenerallyROM(Read-only Memory) 12 stores fixed data fundamentally of the parameters the program which CPU11 usesand for an operation. In the program used in execution of CPU11and its executionRAM(Random-Access Memory) 13 stores a variable parameter suitably. These are mutually connected by the host bus 14 which comprises a CPU bus etc.

[0024]The host bus 14 is connected to the external buses 16such as a PCI (Peripheral Component Interconnect/Interface) busvia the bridge 15.

[0025]The keyboard 18 is operated by the user when inputting various kinds of instructions into CPU11. The mouse 19 is operated by the user when performing the directions and selection of the point on the screen of the display 20. The display 20 comprises a liquid crystal display or CRT (Cathode Ray Tube)and

displays a variety of information in a text or an image. HDD(Hard Disk Drive) 21 drives a hard disk and records or reproduces the program and information which are performed by CPU11 to them.

[0026]The drive 22 reads the data or the program currently recorded on the magnetic disk 41 with which it is equipped the optical disc 42 (CD is included) the magneto-optical disc (MD is included) 43 or the semiconductor memory 44 The data or program is supplied to RAM13 connected via the interface 17 the external bus 16 the bridge 15 and the host bus 14.

[0027]Portable MD drive 5 is connected to USB port 23 via a USB cable. USB port 23 via the interface 17 the external bus 16 the bridge 15 or the host bus 14 HDD21 CPU11 or the data (for example the command of contents or portable MD drive 5 etc. are included) supplied from RAM13 is outputted to portable MD drive 5.

[0028]The loudspeaker 24 outputs the predetermined sound corresponding to contents based on the audio signal supplied from the interface 17.

[0029]These keyboard 18 ** loudspeakers 24 are connected to the interface 17 and the interface 17 is connected to CPU11 via the external bus 16 the bridge 15 and the host bus 14.

[0030]While the network 2 is connected and the communications department 25 stores in the packet of a prescribed method the data (for example Request to Send of content etc.) supplied from CPU11 or HDD21 and transmitting via the network 2 The data (for example contents etc.) stored in the packet which received is outputted to CPU11 RAM13 or HDD21 via the network 2.

[0031]The memory card interface 26 reads the contents memorized by the memory card 7 from the memory card 7 with which the personal computer 1 was equipped CPU11 RAM13 or HDD21 are supplied and CPU11 RAM13 or the data supplied from HDD21 is stored in the memory card 7.

[0032]The communications department 25 and the memory card interface 26 are connected to CPU11 via the external bus 16 the bridge 15 and the host bus 14.

[0033]Drawing 3 shows the composition of portable MD drive 5. It is connected to the USB cable connected to USB port 23 of the personal computer 1 and USB terminal 61 of portable MD drive 5 delivers and receives information including data a command etc. between the personal computers 1. The control section 62 is what is called a microcomputer that comprises a CPU RAM and a ROM and is controlling operation of whole portable MD drive 5. Record on MD6 the contents which the recording reproduction section 63 is controlled from the control section 62 via the bus 64 and are transmitted from the personal computer 1 via USB terminal 61 and. The information on contents is made to record on TOC and the information on the contents recorded on TOC and contents are read.

[0034]Drawing 4 is a block diagram explaining the function of the personal computer 1 realized when CPU11 executes a contents managing program. The GUI (Graphical User Interface) section 101 While supplying the file name etc. of the file by which the track name or contents corresponding to the contents which a user considers as a request is stored in the music Management Department 104 corresponding to operation of the keyboard 18 by a user or the mouse

19Registration of the data corresponding to the contents to the database 106 is required.

[0035]GUI section 101 acquires the data of the data corresponding to contentsfor examplemusic ID and a track namean artist nameetc. from the database 106 via the music Management Department 104The icon corresponding to textssuch as music IDa track nameor an artist nameis displayed on the display 20.

[0036]The data corresponding to the contents by which GUI section 101 is stored in personal portable MD drive 5 or the memory card 7 from the transmission treating part 103For examplethe data of media content IDa track nameor an artist name is acquiredand the icon corresponding to textssuch as a track name or an artist nameis displayed on the display 20.

[0037]GUI section 101 supplies music ID corresponding to the contents as which reproduction was required to the contents managing treating part 102when reproduction of contents is required by a user's operationand it requires reproduction of contents of the contents managing treating part 102.

[0038]GUI section 101 supplies music ID corresponding to the contents as which transmission was required to the transmission treating part 103when transmission (check-outa copyor movement) of contents is required by a user's operationand it requires transmission of contents of the transmission treating part 103.

[0039]GUI section 101 supplies media content ID corresponding to the contents as which import was required to the transmission treating part 103when import of contents is required by a user's operationand it requires import of contents of the transmission treating part 103.

[0040]The contents managing treating part 102 supplies music ID corresponding to the contents as which reproduction was required of the music Management Department 104when reproduction of contents is required from GUI section 101and it requires the file name corresponding to contents. The contents managing treating part 102 acquires contents from the music file storage 107-1 or 107-2 via the music Management Department 104the file search part 105and the database 106when a file name is acquired from the music Management Department 104.

[0041]The contents managing treating part 102 supplies the acquired contents to the PC (Protected Content) plug-in 109-1 or 109-2.

[0042]When contents are supplied from the contents managing treating part 102PC plug-in 109-1109-2 decodes the contents codedand it supplies voice data to voice output part 110-1110-2. Voice output part 110-1110-2 generates an audio signaland it makes a sound output to the loudspeaker 24 based on voice data.

[0043]The user can do additional installation of the PC plug-in further at the personal computer 1.

[0044]When there is no necessity of distinguishing the PC plug-in 109-1 or the PC plug-in 109-2 separatelyhereafterthe PC plug-in 109 is only called.

[0045]The transmission treating part 103 supplies music ID corresponding to the contents as which transmission was required to the music Management

Department 104when transmission of contents is required from GUI section 101and it requires the file name corresponding to contents. The transmission treating part 103 acquires the contents corresponding to a file name from the music file storage 107-1 or 107-2 via the music Management Department 104the file search part 105and the database 106when a file name is acquired from the music Management Department 104.

[0046]The transmission treating part 103 supplies the acquired contents to the MD drive plug-in 111.

[0047]The transmission treating part 103 supplies media content ID corresponding to the contents as which import was required to the memory card plug-in 112when import of contents is required from GUI section 101and. Import of the contents corresponding to media content ID is required. The transmission treating part 103 acquires the contents imported from the memory card plug-in 112.

[0048]The transmission treating part 103 supplies the contents imported to the music Management Department 104.

[0049]When movement (move) in the personal computer 1 from the memory card 7 of contents from GUI section 101 is required of the transmission treating part 103Media content ID corresponding to the contents as which movement was required is supplied to the memory card plug-in 112and movement of the contents corresponding to media content ID is required. The transmission treating part 103 acquires the contents moved from the memory card plug-in 112.

[0050]The transmission treating part 103 supplies the contents moved to the music Management Department 104.

[0051]The MD drive plug-in 111 supplies contents to portable MD drive 5 with the data relevant to contentswhen contents are supplied from the transmission treating part 103.

[0052]The user can do additional installation of the MD drive plug-in 111 further at the personal computer 1.

[0053]The memory card plug-in 112 reads the contents corresponding to media content ID from the memory card 7when import of contents is required from the transmission treating part 103. The memory card plug-in 112 supplies the read contents to the transmission treating part 103.

[0054]The memory card plug-in 112 reads the contents corresponding to media content ID from the memory card 7when movement of contents is required from the transmission treating part 103. The memory card plug-in 112 supplies the read contents to the transmission treating part 103.

[0055]The music Management Department 104 makes the data of the track name corresponding to contentsthe file name corresponding to contentsetc. record on the database 106and it reads a track name or a file name from the database 106. When a track name or a file name is received from GUI section 101the music Management Department 104 makes a record add to the database 106and makes a track name or a file name record as an item of a record.

[0056]The music Management Department 104 makes the data of the track name corresponding to contentsthe file name corresponding to contentsetc. recordwhen

the contents imported are supplied from the transmission treating part 103 and. Contents are made to record on the music file storage 107-1 or the music file storage 107-2.

[0057]The music Management Department 104 makes the data of the track name corresponding to contents the file name corresponding to contents etc. record when the contents moved are supplied from the transmission treating part 103 and it makes contents record on the music file storage 107-1 or 107-2.

[0058]The music Management Department 104 reads all the track names music ID etc. which are recorded on the database 106 from the database 106 corresponding to the demand from GUI section 101 and supplies GUI section 101.

[0059]When music ID is supplied from the contents managing treating part 102 the music Management Department 104 reads the file name corresponding to music ID from the database 106 and supplies the read file name to the contents managing treating part 102. When music ID is supplied from the transmission treating part 103 the music Management Department 104 reads the file name corresponding to music ID from the database 106 and supplies the read file name to the transmission treating part 103.

[0060]The file search part 105 searches the file (contents are stored) corresponding to a file name based on the file name acquired from the database 106 corresponding to a demand of the music Management Department 104 from the music file storage 107-1 or the music file storage 107-2. The file search part 105 supplies the file read from the music file storage 107-1 or 107-2 to the music Management Department 104 or supplies the file which changed the file name of a file and changed the file name to the music Management Department 104.

[0061]The music Management Department 104 supplies the file which was supplied from the file search part 105 and in which contents are stored to the contents managing treating part 102 or the transmission treating part 103.

[0062]The database 106 records the attribute of the data about contents for example ID of music a track name a file name or others etc. The database 106 is stored in HDD21.

[0063]Music file storage 107-1 107-2 comprises external storages which are not illustrated such as HDD21 or a removable disk device for example and it stores contents as a file. Music file storage 107-1 107-2 can store one or more files corresponding to one music. Music file storage 107-1 107-2 corresponds to one drive letter for example. The drive letter corresponding to music file storage 107-1 107-2 may be changed. A file is also only called contents below.

[0064]One or more files corresponding to one music may be recorded on the music file storage 107-1 and one or more files corresponding to the music may be recorded on the music file storage 107-2.

[0065]Next with reference to drawing 5 the display example of the screen where GUI section 101 displays the contents recorded on each between the personal computer 1 and portable MD drives 5 on the display 20 check-in or when you check out is explained.

[0066]The PD field 201 on the display 20 shows the information on the contents

recorded on MD6 with which portable MD drive 5 as PD (Portable Device) was equipped. The track number on which contents are recorded is displayed on left-hand side and the title name is displayed on the right-hand side. In now to the track number 01 to "Song-3" and the track number 02. The title of the contents which store in "Song-5" and the track number 03 "Song-7" are stored in the track number 04 "Song-9" and are stored in the track number 05 "Song-11" is displayed. [0067] On the bottom of it it is displayed as "the group 1" and to the track number 06. To "Song-12" and the track number 07. "Song-14" is displayed on "Song-13" and the track number 08 as a title respectively. It is shown that "Song-12" "Song-13" and "Song-14" which are contents of the track numbers 06 thru/or 08 belong to the group who calls the group 1. Grouping is mentioned later.

[0068] On the bottom of it "Song-15" thru/or "Song-18" are displayed in the track numbers 09 thru/or 12 respectively and a corresponding track and the contents stored are shown.

[0069] The diskname display column 212 is formed on the PD field 201 and when it is now it is displayed as "Disc1" as diskname. By PD name display column 211 providing on it when it is a **** cage and now it is displayed as "MD" and it is shown that MD6 of portable MD drive 5 is chosen as a portable device. When it is now PD name display column 211 can choose the portable device connected to the present personal computer 1 now for example can also choose the memory card 7 and At this time. The information on the contents recorded on the memory card 7 will be displayed on the PD field 201.

[0070] The PC (personal computer) field 202 is displayed on the left of the PD field 201. The list of the contents stored in the music file storage 107 of the personal computer 1 corresponding to the filter selected in the filter display field 203 furthermore located on left-hand side is displayed. Since "all music" is chosen into the filter display field 203 in now in the PC field 202. All the contents currently recorded on the music file storage 107 of the personal computer 1 are displayed and to the track number 1. "Song-5" is shown to "Song-3" and the track number 4 by "Song-2" and the track number 3 at "Song-4" and the track number 5 at "Song-1" and the track number 2 respectively. For every contents an artist name and a genre are read from the database 106 and can be displayed. Since neither is registered in now it is displayed as "Unknown."

[0071] Between the PD field 201 and the PC field 202 the check-in button 213 the check-out button 214 all the check-in buttons 215 the start button 216 and the stop button 217 are displayed. When the check-in button 213 specifies the contents made to check in at the personal computer 1 among the contents recorded on MD6 of portable MD drive 5 it is specified as contents at which the contents which the user operated the mouse 19 were pushed and were chosen by being pushed check in. When the check-out button 214 specifies the contents which MD6 of portable MD drive 5 is made to check out among the contents currently recorded on the personal computer 1 the contents which a user operates the mouse 19 it is pushed and he is going to check out by being pushed are specified.

[0072]When all the check-in buttons 215 specify all the contents recorded on MD6 with which portable MD drive 5 was equipped as contents which check in at the personal computer 1A user operates the mouse 19 and it is pushed and is specified by being pushed as contents which all the contents check out.

[0073]The start button 216 The check-in button 213 the check-in button 214 Or where the contents which check in with either of all the check-in buttons 215 or he checks out are specified it is pushed when a user makes check-in or check-out start. While the above-mentioned start button 216 is pushed and performing check-in or processing of check-out the stop button 217 is pushed when stopping the processing.

[0074]Next with reference to the flow chart of drawing 6 processing of the grouping of the contents recorded on MD6 is explained.

[0075]In Step S1 GUI section 101 judges whether the new group's creation was required and it repeats the processing until a new group's creation is required. For example when a user operates the mouse 19 for the pointer 205 displayed on the display 20 The contents corresponding to [as drawing 7 shows] the track numbers 10 thru/ or 12 on the PD field 201 "Song-16" Song-17 and "Song-18" are dragged (selection) and by predetermined operation (for example operation which clicks the right button at the time of being the mouse 19 of 2 button types when OS is Windows (registered trademark)) as drawing 8 shows the pop-up list 231 is displayed. 231 d of additional columns the column 231 e removed from a group 231 f of the deletion columns 231 g of the change columns of a name and the property 231 h are formed at the pop-up list 231 in the reproduction column 231 a the check-in specification column 231 b the new group column 231 c and the group.

[0076]at this time further the pointer 205 is moved and the new group column 231 c chooses from this inside -- having (it clicks) -- it is judged with the new group's generation having been required and that processing progresses to Step S2.

[0077]In Step S2 GUI section 101 displays the dialog box 241 of creation of a new group as drawing 9 shows. The dialog box 241 "a new group is created. Please input the group name to create. It is displayed as " and the new group name input column 241 a for a full-width character input and the new group name input column 241 b for a half-width character input are displayed. The user can operate the keyboard 18 to either the new group name input column 241 a or 241 b and can input a new group name into it. The "new group" is beforehand inputted into the new group name input column 241 a of full width as a new group name in the default state.

[0078]In Step S3 a group name is inputted and GUI section 101 judges whether OK button 241 c was pushed for example is in the state of drawing 9 and when OK button 241 c is pushed the processing follows it to step S4. Namely in now by default to the input column 241 a. Since the "new group" is inputted also in the state where a user inputs nothing into the input column 241 a especially as it is if OK button 241 c is pushed a part loop name will be inputted and it will be judged with OK button 241 c having been Europeanized.

[0079]In step S4 GUI section 101 the created group name For example Song-

16which it displays as a "new group" as drawing 10 showsand is contents of the track numbers 10 thru/or 12It indicates that grouping of "Song-17" and "Song-18" was carried outand it orders so that the information on the grouping of TOC of MD6 with which it was equipped may be rewritten to portable MD drive 5 via the transmission treating part 103and the processing is ended.

[0080]Herewith reference to the flow chart of drawing 11grouping processing of portable MD drive 5 is explained.

[0081]In Step S11the control section 62 judges whether the instructions which control USB terminal 61 and rewrite the information on grouping were inputtedand it repeats the processing until the instructions which rewrite the information on grouping are inputted. For exampleby processing of step S4 of the flow chart of drawing 6if the instructions which rewrite the information on grouping are inputtedit will judge with the instructions which rewrite the information on grouping having been inputtedand the processing will progress to Step S12.

[0082]In Step S12the control section 62 controls the recording reproduction section 63and rewrites the grouped information of TOC of MD6. Grouped information is recorded on the area (portion) which records the diskname of TOC defined by the recording format of MD6 as text data. As drawing 12 showsthe information on disknamegrouped informationand the title information of each track are recorded from the head position (from *****)and when it is nowTOC to TOC. "Disc1" is recorded as diskname and as grouped informationThe title information of each track is recorded as having told Song-3 to the track number 1 (the inside of a figureTr1)and having told Song-5 -- to the track number 2 (the inside of a figureTr2) as the "group 1:06-08"new group:10-12and information on each track. The "group 1:06-08" of grouped information and "new group:10-12" The group by whom the group name was set up as "the group 1" as shown in PD field of drawing 10The contents "Song-12" of the track numbers 06 thru/or 08Song-13And comprising "Song-14" is shown and it is shown that the group by whom the group name was set up as a "new group" comprises "Song-16" of the track numbers 10 thru/or 12Song-17and "Song-18." That isin nownew group:10-12will be added by processing of Step S12 as grouped informationand it will be rewritten.

[0083]Although not illustratedin addition to thisan artist namean album nameetc. for every contents are recorded on TOC.

[0084]In Step S3when OK button 241c was not pushedi.e.Cancel button 241d is pushedit judges with the new group's creation having been canceledprocessing of step S4 is skippedand the processing is ended.

[0085]as drawing 13 shows if the pointer 205 is moved to a new group's (new group to whom it was shown by the slash among the figure) selected positionand predetermined operation is carried out to it in the state of drawing 10and it double-clicks for exampleThe display of the contents "Song-16" of the numbers 10 thru/or 12 belonging to a new groupSong-17and "Song-18" disappearsand only a group name is displayed. If predetermined processing is performed in the state of drawing 13redisplay of the contents "Song-16" of the numbers 10 thru/or 12 which belong to a new group as drawing 10 shows againSong-17and "Song-18"

will be carried out (if it double-clicks for example). Thus by enabling it to change a display when the contents recorded on MD6 can be displayed per group for example it searches contents visually by making it display per group first. Search from a group the contents considered as a request and further in the place which a group's search ended. Desired contents can be searched from the contents in the searched group and visual search can be made easy even if the number of contents recorded on MD6 becomes huge.

[0086] Next with reference to the flow chart of drawing 14 the group adding processing which adds the contents which do not belong to a group to the existing group is explained. In Step S21 GUI section 101 repeats the processing until it judges whether the group addition was required and is judged as the demand of the group addition having been made. For example as drawing 15 shows where the contents "Song-15" of the track number 19 which do not belong to a group are dragged in the position of the pointer 205 by predetermined operation (for example operation which clicks the right button at the time of being the mouse 19 of 2 button types when OS is Windows (registered trademark)). displaying the pop-up list 231 as drawing 15 shows and moving the pointer 205 further -- the group from this inside -- 231 d of additional columns -- choosing (it clicks) -- it is judged with the group addition having been required and that processing progresses to Step S22.

[0087] In Step S22 GUI section 101 displays the pop-up list 232 as which either the next "former group" or and the "group" is made to choose it as drawing 15 shows.

[0088] As it judges whether "the former group" was chosen in Step S23 for example drawing 15 shows moving the pointer 205 to the position of "the former group" -- predetermined operation -- carrying out (for example it clicks) -- it judges with having chosen "the former group" and the processing progresses to Step S24.

[0089] In Step S24 GUI section 101 Make it display on the display 20 as the contents chosen as the former group's tail end are moved (moving the display of contents) for example drawing 16 shows and. The information on the grouping of MD6 with which it was equipped is made to update to portable MD drive 5 via the transmission treating part 103 and the MD drive plug-in 111. That is as drawing 16 shows the contents "Song-15" of the track number 9 which did not belong to a group are displayed on the group's 1 tail end. As drawing 17 shows grouped information the group set up as "the group 1" is updated by "Song-12" of the track numbers 06 thru/or 09 Song-13 Song-14 and the information that shows that it comprises "Song-15."

[0090] When judged with the next group having been chosen in Step S23 in Step S25 GUI section 101 Make it display on the display 20 as the contents chosen as the next group's head are moved for example drawing 18 shows and. The information on the grouping of MD6 with which it was equipped is made to update to portable MD drive 5 via the transmission treating part 103 and the MD drive plug-in 111. That is as drawing 18 shows the contents "Song-15" of the track number 09 which did not belong to a group are displayed on a new group's head position. Grouped

information is updated by the information the group set up as a "new group" indicates it to be to comprise "Song-15" of the track numbers 09 thru/or 12 Song-16 Song-17 and "Song-18" as drawing 19 shows.

[0091] Next with reference to the flow chart of drawing 20 the processing which removes from a group the contents which belong to a group is explained.

[0092] In Step S31 it judges whether although GUI section 101 removed predetermined contents from the group it was specified and the processing is repeated until it is specified although predetermined contents are removed from a group. For example when a user operates the mouse 19 for the pointer 205 displayed on the display 20 as drawing 21 shows the contents "Song-13" corresponding to the number track 07 on the PD field 201 are dragged By predetermined operation (for example operation which clicks the right button at the time of being the mouse 19 of 2 button types when OS is Windows (registered trademark)). the column 231e which displays the pop-up list 231 as drawing 21 shows is made to move the pointer 205 further and is removed from this inside to a group -- choosing (it clicks) -- it is judged with the processing removed from a group having been required and that processing progresses to Step S32.

[0093] In Step S32 as drawing 22 shows GUI section 101 makes it move behind [that selected contents belong] a group (in the direction of figure Nakashita) and is displayed on the display 20 for example. That is GUI section 101 makes it move behind the group 1 (for figure Nakashita) and displays the contents "Song-13" of the selected number 07 on it. GUI section 101 makes the information on the grouping of TOC of MD6 with which it was equipped update to portable MD drive 5 via the transmission treating part 103 and the MD drive plug-in 111. Namely in now after contents "Song-13" have belonged to the group 1. As drawing 23 shows grouped information The contents of the track numbers 06 thru/or 08 "Song-12" By removing contents "Song-13" from the group of "the group 1:06-08" who shows "Song-13" and the group who consists of "Song-14" as drawing 24 shows grouped information is rewritten by "the group 1:06-07." By having moved the contents "Song-13" of the track to the position behind the group 1 (figure Nakamigi side) The contents "Song-13" of the track number 7 (tr7) TOC is rewritten and updated by the state where contents "Song-14" moved to the track number 7 and contents "Song-13" moved to the track number 8 respectively by moving to the position after the contents at the tail end belonging to the group 1 "Song-14."

[0094] Next with reference to the flow chart of drawing 25 the processing which reproduces the contents by which grouping was carried out per group is explained.

[0095] In Step S41 GUI section 101 judges whether group reproduction was required and it repeats the processing until group reproduction is required. For example when a user operates the mouse 19 for the pointer 205 displayed on the display 20 The contents corresponding to [as drawing 26 shows] the track numbers 06 thru/or 08 on the PD field 201 "Song-12" Song-13 and the "group 1" who consists of "Song-14" are dragged By predetermined operation (for example operation which clicks the right button at the time of being the mouse 19

of 2 button types when OS is Windows (registered trademark)). displaying the pop-up list 245 and moving the pointer 205 further -- this inside to the group reproduction column 241b -- choosing (it clicks) -- it is judged with group reproduction having been required and that processing progresses to Step S42.

[0096]In Step S42GUI section 101 orders the music Management Department 104 reproduction of a group's specified contents (music file). Since "the group 1" is chosen in the case of drawing 26GUI section 101 orders the music Management Department 104 reproduction of the contents "Song-12" belonging to the group 1Song-13and "Song-14."

[0097]In Step S43the music Management Department 104 makes the contents belonging to the ordered group read from MD6 of portable MD drive 5 via the transmission treating part 103 and the MD drive plug-in 111and outputs to the contents managing treating part 102. In nowthe contents "Song-12" belonging to the group 1Song-13and "Song-14" will be read from portable MD drive 5and will be outputted to the contents managing department 102.

[0098]The contents managing treating part 102 makes the contents read from the transmission treating part inputted by the music Management Department 104 output as a sound from the voice output part 110 via the PC plug-in 109 in Step S44. In nowthe contents "Song-12" belonging to the group 1Song-13and "Song-14" are outputted as a sound from the voice output part 110 via the PC plug-in 109 (as music).

[0099]In Step S45GUI section 101 judges whether the group repeat is specified. For exampleas drawing 27 showsoperate the mouse 19operate the pointer 205 and the button 251 is pushed (clicking)When the pop-up list 252 is displayedthe group repeat column 252a is chosen further and ** (clicking) and a group repeat are chosenGUI section 101It judges with the group repeat being set upthe processing returns to Step S43and processing after it is repeated. That isafter in now contents "Song-12"Song-13and "Song-14" are reproduced one by one and reproduction of contents "Song-14" is completedagainreproduction is started from contents "Song-12" and this operation is repeated.

[0100]In Step S45when judged with the group repeat not being specifiedthe processing is ended.

[0101]Setting out of the group repeat explained with reference to drawing 27 can be set up irrespective of the reproduction state of contents. Thereforefor exampleif release of a group repeat is specified during reproduction of contentsreproduction of "Song-14" reproduced by the beginning after specification will be completedand regeneration will be completed.

[0102]Nextgroup check-in is explained with reference to the flow chart of drawing 28.

[0103]In Step S51GUI section 101 judges whether group check-in was specifiedand it repeats the processing until group check-in is specified. For exampleif the check-in button 213 is pushed where "the group 1" is chosen as drawing 29 showsit will judge with group check-in having been specifiedand the processing will progress to Step S52.

[0104]In Step S52GUI section 101 performs the display corresponding to the contents belonging to the group by whom check-in specification was done and its group. That is in now as drawing 29 shows the leftward arrow which shows that check-in was specified as the position which displays the track number on the left of [each] "the group 1" 06 Song-12 07 Song-13 and "08 Song-14" is displayed.

[0105]In Step S54GUI section 101 Move to the PC field 202 display the specified contents and eliminate from the PD field 201 and. The data of contents corresponding from portable MD drive 5 via the transmission treating part 103 and the MD drive plug-in 111 is made to read and TOC is made to update.

[0106]Although it was the composition that forward [which checks in at the information on TOC in now] was shown by drawing 23 it is updated by processing of Step S54 at TOC as shown by drawing 30. Namely since the contents belonging to "the group 1" checked in at the personal computer 1 Since the group 1 will be in the state where it does not exist it is deleted from grouped information and further to the track numbers 06 thru/or 09. When the contents of the track numbers 09 thru/or 12 advance in the state before check-in processing to the track number 6. "Song-18" will advance to "Song-16" and the track number 8 and will be updated by "Song-17" and the track number 9 at "Song-15" and the track number 7 at them.

[0107]In Step S55 the music Management Department 104 makes the music file storage 107 memorize by making into a music file the file search part 105 and the contents specified via the database 106 and updates the database 106.

[0108]Namely in now by processing of Step S54 as drawing 31 shows corresponding to TOC of drawing 30 the display of the PD field 201 The contents of the track numbers 06 thru/or 09 are displayed on "Song-15" Song-16 Song-17 and "Song-18" as each. The contents which checked in at the display of the PC field 202 from MD6 are displayed on the track numbers 6 thru/or 8 as "Song-12" Song-13 and "Song-14" respectively.

[0109]A push on the stop button 217 will stop the processing by processing of the above check-in in the middle of processing.

[0110]Next with reference to the flow chart of drawing 32 processing of the group check-out which checks out two or more contents by which grouping is carried out on the personal computer 1 per group is explained.

[0111]In Step S71GUI section 101 judges whether group check-out was specified and it repeats the processing until group check-out is specified. For example if the check-out button 214 is pushed where "the new play list" in the filter display field 203 is chosen as drawing 33 shows it will judge with group check-out having been specified and the processing will progress to Step S72.

[0112]In Step S72GUI section 101 performs the display corresponding to the contents of the group by whom check-out was specified. Namely 1 Song-1 which belongs to "the new play list" specified in the filter display field 203 in the case of drawing 33 2 Song-23 Song-34 Song-4 And "5 Song-5" is displayed in the state where it was dragged in the PC field 202 and further in the PD field 201 The new play list who shows the group by whom check-out specification was done And each

contents "Song-1"Song-2Song-3Song-4and "Song-5" are displayedand the rightward arrow which shows that it checked out and volunteered is displayed on each left-hand side. The group should just specify two or more contents as mentioned abovealso including the group classified according to the filters ("a new play list"a non-titleetc.) in which each displayed in the filter display field 203 is shown.

[0113]In Step S73the processing is repeated until it is judged with GUI section 101 having judged whether the start button 216 was pushedand having been pushed. For examplewhen the pointer 205 is moved to the start button 216 of drawing 33 and it is pushedGUI section 101 judges with the start button 216 having been pushedand the processing follows it to Step S74 (when clicked).

[0114]GUI section 101 is made to output from the music file storage 107 to the music Management Department 104 by making into a music file the file search part 105 and the contents specified via the database 106and makes the database 106 update in Step S74.

[0115]In Step S75GUI section 101Eliminate the display of the contents currently displayed on the PC field 202 as which check-out was specifiedand make it display on the PD field 201and. The contents by which check-out was specified as MD6 to portable MD drive 5 are made to record via the transmission treating part 103 and the MD drive plug-in 111and TOC is made to update corresponding to this processing. Namelyin the case of drawing 33by processing of Step S75 TOCAs drawing 34 showsas grouped informationit is updated with "play list:01-05 [new]" and as a group nameA new play listis registered and the information which shows that contents "Song-1"Song-2Song-3Song-4and "Song-5" are recorded on the track numbers 01 thru/or 05 is recorded.

[0116]A push on the stop button 217 will stop the processing by processing of the above check-out in the middle of processing.

[0117]Nextwith reference to the flow chart of drawing 35the group deletion which deletes the contents recorded on MD6 per group is explained.

[0118]In Step S91GUI section 101 repeats the processing until it judges whether group deletion was specified and judges with group deletion having been specified. For exampleas drawing 36 showswhere the "group 1" who shows a group is draggedBy predetermined operation (for exampleoperation which clicks the right button at the time of being the mouse 19 of 2 button types when OS is Windows (registered trademark)). displaying the pop-up list 231as drawing 36 showsand moving the pointer 205 further -- this inside to 231 f of the deletion columns -- choosing (it clicks) -- it is judged with group deletion having been required and that processing progresses to Step S92.

[0119]In Step S92GUI section 101 displays the dialog box of group deletion. That is the dialog box 251 which shows group deletion like drawing 37 is displayed.

[0120]In the case of drawing 37A group is deletedis displayed on the dialog box 251and "the music contained in a group is also deleted" is displayed with the check box 251a on the bottom of it. Under itthe display "check the following when there is music which is not in < attention > check-in *****" is made as cautions.

When carrying out deletion of the check box 251a and you would like to also delete the music contained in a groupThe pointer 205 is moved and a check mark is displayed by what is done for predetermined operation (for exampleit clicks)and when carrying out deletionit can specify also deleting the music contained in a group.

[0121]On the bottom of ithe checks in before deletionis displayed with the check box 251b. Furthermore on the bottom of itIf a check is attached, in order to check [whether he can check in to all the music and], deletion takes timeis displayed. The check box 251a is checkedand before deleting the music contained in a group in the case of deletionthe check box 251b is checked when you check out.

[0122]OK button 251c and Cancel button 251d are displayedOK button 251c is pushed when performing group deletionand Cancel button 251d is pushed on the bottom of the dialog box 251 when canceling group deletion.

[0123]In Step S93when it judges whether OK button 251c was pushedfor exampleOK button 251c is pushedthe processing follows GUI section 101 to Step S94.

[0124]In Step S94GUI section 101 judges whether also deleting the music contained in the group is chosen. For exampleas drawing 38 showswhen the check box 251a is operated and it is (a check mark displayed)it is judged with also deleting the music contained in the group being chosenand the processing progresses to Step S95.

[0125]In Step S95GUI section 101As it judges whether it is chosen although he checks in before deletionfor exampledrawing 38 showsWhen the check box 251b is operated and it is (a check mark displayed)it is judged with being chosen although he checks in before deletionand the processing progresses to Step S96.

[0126]Check-in processing is performed in Step S96. Since this check-in processing is the same as the processing explained with reference to the flow chart of drawing 28that explanation is omitted. In the check-in processing explained with reference to the flow chart of drawing 28since it is deleted from MD6check-in will be performedand processing of deletion of the contents from MD6 will complete the contents at which he checked in. In this casedrawing 31 comes to show a processing result and it becomes being the same as that of the case where check-in processing mentioned above is performed substantially.

[0127]When judged with not being chosen in Step S95 although he checks in before deletionin Step S97 GUI section 101A group name is eliminated and TOC of MD6 with which portable MD drive 5 was equipped is made to update via the transmission treating part 103 and the MD drive plug-in 111.

[0128]GUI section 101 makes TOC of MD6 update to portable MD drive 5 in Step S98 via the transmission treating part 103 and the MD drive plug-in 111.

[0129]As a resultas drawing 39 showsthe display of the contents belonging to the deleted group and the deleted group is eliminatedThe contents "Song-15" of the numbers 09 thru/or 012Song-16Song-17and "Song-18" are advancedand it is displayed as contents of the numbers 06 thru/or 09. At this timeTOC of MD6 is updated like the state which showed by drawing 30 mentioned above.

[0130]In Step S94although the music contained in the group is also deletedwhen not being chosen the processing progresses to Step S98and processing after it is repeated. Namelythe contents of the track numbers 06 thru/or 08 which only the group name was deleted and belonged to the group 1 as drawing 40 showed "Song-12"Song-13and "Song-14" will be displayed in the state where grouping is not carried outand the information concerning [TOC] grouped information to the group 1 will be deleted further.

[0131]Nextthe change processing of a contents name is explained with reference to the flow chart of drawing 41.

[0132]In Step S111GUI section 101 judges whether the change processing of the contents name was specifiedand it repeats the processing until change of a contents name is specified. For exampleas drawing 42 showswhere the contents "Song-7" of the track number 03 are draggedIn the position of the pointer 205by predetermined operation (for exampleoperation which clicks the right button at the time of being the mouse 19 of 2 button types when OS is Windows (registered trademark))as drawing 42 showsthe pop-up list 245 is displayed. The reproduction column 245athe group reproduction column 245bthe check-in specification column 245c245 d of the deletion columnsthe change column 245e of a nameand the property 245f are displayed on this pop-up list 245. hereafterthe pointer 205 is moved and the change column 245e of a name chooses from the pop-up lists 245 -- having (it clicks) -- it is judged with change of a name having been specified and the processing progresses to Step S112.

[0133]In Step S112GUI section 101 displays the input column 261 on the display column of the specified contents. A contents name can be inputted into this input column 261 by text data by displaying cursorfor exampleoperating the keyboard 18.

[0134]In Step S113GUI section 101 judges whether the input of the contents name was completedand it repeats the processing until an input is completed. For exampleif the keyboard 18 is operated and an input is completed by predetermined operationthe processing will progress to Step S114.

[0135]GUI section 101 makes TOC of MD6 equipped with the inputted contents name to portable MD drive 5 via a transmission treating part and the MD drive plug-in 111 update in Step S114. That isin nowthe contents name newly inputted into the input column 261 will be registered as a contents name of the track number 3.

[0136]It is realizable by the same processing as the flow chart of drawing 41 also with change of a group name. Namelyas drawing 44 shows in Step S111where the group name "group 1" is draggedIn the position of the pointer 205by predetermined operation (for exampleoperation which clicks the right button at the time of being the mouse 19 of 2 button types when OS is Windows (registered trademark)). displaying the pop-up list 245as drawing 44 showsand moving the pointer 205 further -- the change column 245e of this inside to a name -- choosing (it clicks) -- it is judged with change of a name having been specified and that processing progresses to Step S112. In Step S112GUI section 101 displays the input column 271 on a group's specified display columnas drawing 45 shows. A

group name can be inputted into this input column 271 by text data by displaying cursor for example operating the keyboard 18 like the input column 261 explained by drawing 43.

[0137] Although the case where contents are recorded above MD6 has been explained Also in [what is necessary is just a recording medium which has the format which can input diskname etc. by text data in the area which records the information used as a list of the data recorded on recording media such as TOC and] the memory card 7 It is also possible to carry out grouping of the contents recorded by the same technique as the above and to operate them per group.

[0138] Since the contents recorded on portable recording media such as MD can be operated per group according to the above it becomes possible to operate many contents easily efficiently.

[0139] Although a series of processings mentioned above can also be performed by hardware they can also be performed with software. The computer by which the program which constitutes the software is included in hardware for exclusive use when performing a series of processings with software Or it is installed in the personal computer for example are general-purpose etc. which can perform various kinds of functions from a recording medium by installing various kinds of programs.

[0140]. A user is provided with this recording medium in the state where it was beforehand included in the personal computer 1 as shown in drawing 2. Not only apart from HDD 29 on which the program is recorded but apart from a computer The magnetic disk 101 (a flexible disk is included) which is distributed in order to provide a user with a program and with which the program is recorded the optical disc 102 (CD-ROM (Compact Disk-Read Only Memory).) DVD (Digital Versatile Disk) is included -- it is constituted by the package media which consist of the magneto-optical disc 103 (MD (Mini-Disk) (registered trademark) is included) or the semiconductor memory 104 (Memory Stick is included).

[0141] In this specification even if the processing serially performed in accordance with an order that the step which describes the program recorded on a recording medium was indicated is not of course necessarily processed serially it includes a parallel target or the processing performed individually.

[0142] In this specification a system expresses the whole device constituted by two or more devices.

[0143]

[Effect of the Invention] By according to the information processor of this invention a method and the program recording two or more data on a recording medium displaying as a picture the information which shows a list of two or more data and operating a picture With the information which generates a group and shows a list of two or more data from two or more data by editing the information which shows a list of two or more data and operating a picture. By recording the name of a recording medium for a group's information on the portion which can be inputted by text data and operating a picture Based on the information which shows a list of two or more data which read two or more data recorded on the recording

medium and was recorded on the portion which can be inputted by text data in the name of the recording medium and a group's information. By displaying as a picture the information which shows a list of two or more data and operating a picture data unit. Or since two or more data recorded on the recording medium per group is read it comes out and it was made to carry out the contents recorded on the recording medium can be operated per group and it becomes possible to operate many contents easily efficiently.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is a figure showing the 1 embodiment of the contents data management system concerning this invention.

[Drawing 2] It is a block diagram explaining the composition of a personal computer.

[Drawing 3] It is a block diagram explaining the composition of a portable MD drive.

[Drawing 4] It is a block diagram explaining the function of a personal computer.

[Drawing 5] It is a figure showing the display example of the screen displayed on a display.

[Drawing 6] It is a flow chart explaining grouping processing of a personal computer.

[Drawing 7] It is a figure showing the display example of the screen displayed on a display.

[Drawing 8] It is a figure showing the display example of the screen displayed on a display.

[Drawing 9] It is a figure showing the display example of the screen displayed on a display.

[Drawing 10] It is a figure showing the display example of the screen displayed on a display.

[Drawing 11] It is a flow chart explaining grouping processing of a portable MD drive.

[Drawing 12] It is a figure explaining TOC recorded on MD.

[Drawing 13] It is a figure showing the display example of the screen displayed on a display.

[Drawing 14] It is a flow chart explaining group adding processing.

[Drawing 15] It is a figure showing the display example of the screen displayed on a display.

[Drawing 16] It is a figure showing the display example of the screen displayed on a display.

[Drawing 17] It is a figure explaining TOC recorded on MD.

[Drawing 18] It is a figure showing the display example of the screen displayed on a display.

[Drawing 19] It is a figure explaining TOC recorded on MD.

[Drawing 20] It is a flow chart explaining the processing removed from a group.

[Drawing 21] It is a figure showing the display example of the screen displayed on a display.

[Drawing 22]It is a figure showing the display example of the screen displayed on a display.

[Drawing 23]It is a figure explaining TOC recorded on MD.

[Drawing 24]It is a figure explaining TOC recorded on MD.

[Drawing 25]It is a flow chart explaining group regeneration.

[Drawing 26]It is a figure showing the display example of the screen displayed on a display.

[Drawing 27]It is a figure showing the display example of the screen displayed on a display.

[Drawing 28]It is a flow chart explaining group check-in processing.

[Drawing 29]It is a figure showing the display example of the screen displayed on a display.

[Drawing 30]It is a figure explaining TOC recorded on MD.

[Drawing 31]It is a figure showing the display example of the screen displayed on a display.

[Drawing 32]It is a flow chart explaining group check-out processing.

[Drawing 33]It is a figure showing the display example of the screen displayed on a display.

[Drawing 34]It is a figure explaining TOC recorded on MD.

[Drawing 35]It is a flow chart explaining group deletion.

[Drawing 36]It is a figure showing the display example of the screen displayed on a display.

[Drawing 37]It is a figure showing the display example of the screen displayed on a display.

[Drawing 38]It is a figure showing the display example of the screen displayed on a display.

[Drawing 39]It is a figure showing the display example of the screen displayed on a display.

[Drawing 40]It is a figure showing the display example of the screen displayed on a display.

[Drawing 41]It is a flow chart explaining the change processing of a contents name.

[Drawing 42]It is a figure showing the display example of the screen displayed on a display.

[Drawing 43]It is a figure showing the display example of the screen displayed on a display.

[Drawing 44]It is a figure showing the display example of the screen displayed on a display.

[Drawing 45]It is a figure showing the display example of the screen displayed on a display.

[Description of Notations]

1 A personal computer and 2 A network3 An EMD server4 WWW serversand 5.

Portable MD drive and 6 MD and 7. A memory card11 CPUand 12 ROM13 RAM21

HDDand 41 magnetic disks42 An optical disc and 43 magneto-optical discs44

Semiconductor memory and 101 GUI sections102 A contents managing treating

part and 103. A transmission treating part and 104 The music Management
Department and 105. A file search part and 106 A databaseA 107-1107-2 music-
file storage109-1 and 109-2 PC plug-in110-1 and 110-2 voice output part111 MD
drive plug-in and 112. Memory card plug-inthe 201 PD fieldand 202. PC field and
203 A filter display field and 205. A pointera 211 PD name display columnand 212.
A diskname display column and 213 [A dialog box and 24.] A check-in button and
214 A check-out button and 215 All the check-in buttons216 start buttons217
stop buttonsa 231 pop-up listand 241 5 A pop-up list and 251 A button and 252 A
pop-up list261271 input columns
